

REMARKS

Claims 1 through 4, 7 through 21, and 24 through 29 are pending in this application. Claims 1 through 4, 7, 16 through 19 and 24 are amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. Claims 26 through 29 have been newly added. Claims 5, 6, 22 and 23 have been canceled without prejudice or disclaimer of its subject matter.

I. REJECTION OF CLAIMS (35 U.S.C. § 103)

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art

and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20
USPQ2d 1438 (Fed. Cir. 1991).

A. Claims 1-3, 5-18 and 22-25 are rejected under 35 U.S.C. 103(a) as obvious over Bassetti et al (5,757,338). The Applicant respectfully traverses.

1. The Examiner states that as to claims 1 and 16, if applicants think that the spread spectrum unit(74) is not provided between the graphic processing unit(72, 52, 54, 56) and the LCD(22), it would have been obvious to have a spread spectrum unit(74) locate between the graphic processing unit(72, 52, 54, 56) and the LCD(22) since such modification would have involved a mere change in the location of the spread spectrum unit(74) and it is generally recognized as being within the level of ordinary skill in the art.

Respectfully, the Examiner is failing to provide a *prima facie* case by just stating that it is obvious due to it being a “mere” change of location. This is a conclusion and not a reason for rejection. Moving the graphic processor unit in Bassetti would quite obviously change the signals generated, and so modifying Bassetti would be improper.

As the MPEP §706.02(j) states, “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” Here, not all of the claimed limitations are taught. The

Examiner fails to mention the motivation to modify Bassetti so the spread spectrum is located in position as claimed in the invention.

Moreover, as stated in MPEP §2144.04, “However, “The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference device.” *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).” (emphasis added)

Therefore, the mere fact that one could even rearrange the part is not enough to show obviousness in Bassetti as Bassetti fails to show any kind of motivation to change the location.

Furthermore, as amended, claims 1 and 16 also includes the spread spectrum provided between said graphic processing unit and LCD transmitter. As shown below in point I.A.2., Bassetti fails to teach or suggest this limitation.

2. As to claims 2, 5 and 22, the Examiner states that Bassetti et al teaches the spread spectrum unit(74) being arranged between the graphic processing unit(72, 52, 54, 56) and the LCD display transmitter(62)(see figure 7 and column 9).

If the Examiner is stating that the graphic processing unit is units 72, 52, 54 and 56, then clearly unit 74 is not between the graphic processing unit and the LCD controller 62. To state that it is would be stretching the disclosure of the reference. The signal path in figure 7 shows that both

reference 56 (part of the graphic unit) and the clock modulator 74 sends a signal to the LCD controller 62. Therefore, the clock modulator 74 cannot be in between the graphic unit and the LCD controller 62.

Moreover, as amended, claims 2 and 17 also include the *spread spectrum unit... having an input connected directly to said graphic processing unit and an output connected directly to said liquid crystal display transmitter, with an output of said liquid crystal display transmitter being connected to a connector unit and cable harness for connection to said liquid crystal display.* Bassetti clearly fails to teach or suggest this limitation. As seen in Fig. 7 of Bassetti, the output of 56 (graphics unit) goes into the LCD controller 62 and not the CLK modulator 74. Furthermore, the output of the clock modulator 74 is not directly connected to the LCD controller 62.

3. Concerning claims 7 and 24, Bassetti fails to teach or suggest *said spread spectrum unit being coupled with said display transmitter.* As seen in figure 7 of Bassetti, reference 74, the clock modulator is not coupled to the LCD controller 62 but reference 78.

4. Concerning claim 1, Bassetti fails to teach or suggest the spread spectrum modulating a frequency of the clock signal from said clock generator within a *predetermined frequency range.* No such predetermined frequency range is ever taught or suggested in Bassetti. Bassetti only mentions spread spectrum in general.

5. Concerning claims 1 and 11, the references used by the Examiner (72, 52, 54, 56) fails to teach or suggest the graphic processing unit of the claimed invention. For example, claim 1 claims, "a graphic processing unit for converting the image signal provided from at least one of said central processing unit and a memory *into a signal accommodating display on said liquid crystal display*". Clearly references 72, 52, 54 and 56 fail to teach or suggest the conversion of the signal into a signal accommodating display on the LCD because in col. 8, lines 52 to col. 9, line 33 of Bassetti, it mentions *LCD controller 62 performs the formatting of the pixels and gray-scale conversion so that the pixels are in a format accepted by LCD display 22*. Therefore, it is only with the LCD controller 62 that the signal is converted into a signal that accommodates display on the LCD.

Therefore, if reference 62 must also be included, then Bassetti is further problematic in teaching the claimed invention.

B. Claims 4 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bassetti et al(5,757,338) in view of Leung et al(6,580,432). The Applicant respectfully traverses.

The Examiner goes on to state that Leung et al. teaches the spread spectrum unit (130) can be integrally formed with the graphic processing unit (see figure 1 and column 3, lines 27-36).

However, looking at col. 3, lines 27-36, Leung states that “The spread-spectrum clock signal 128 is generated by a jitter clock generator 130 that may be integrated as part of the spread-spectrum FIFO 106 or may be an external circuit, if desired.” The passage is stating that the jitter clock generator 130 and the spread-spectrum FIFO 106 can be integrated and not the graphic processing unit and the spread spectrum unit. Furthermore, figure 1 of Leung clearly suggests the lack of such integration.

Moreover, in col. 3, lines 49-51, Leung states that “The jitter clock generator 130 serves as the spread spectrum clock generator and receives an amplitude control signal 140.” Col. 4, line 4 to line 7 of Leung states “The spread-spectrum FIFO 106 in conjunction with the spread-spectrum clock generator 130 facilitates the passing of data and control signals from an unjittered domain to a jittered domain.” Therefore, clearly, both 130 and 106 concern the spread spectrum unit and have nothing to do with processing the graphics. Therefore, all of the claim limitations are not taught or suggested as mandated to fulfill the Examiner’s burden of proving *prima facie* case of obviousness according to MPEP 706.02(j).

C. Claims 1, 5-11, 16 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al(6,229,513) in view of Chen(6,433,766). The Applicant respectfully traverses.

The Examiner states that as to claims 1, 5-11, 16 and 22-25, Nakano et al teaches a computer system comprising an LCD display(10); a clock generator(a clock generator in PC)(see figure 1; column 4, lines 40-67 and column 5, lines 1-11); a graphic processing unit(170, 160) for converting

an image signal provided from at least one of the CPU and a memory into a signal displayed on the LCD(10) and a display control unit(110) provided between the graphic processing unit(170, 160) and the LCD display(10) for modulating a frequency of the clock signal from the clock generator(see figures 1, 4A, 4B; column 4, lines 40-67; column 5, lines 1-11; column 6, lines 58-68 and column 7, lines 1-42).

Respectfully, however, reference 170 and 160 are clearly not a graphic processing unit. As seen in figure 1 of Nakano, 170 is a transmitter and 160 is the receiver of an LVDS transmission. References 170 and 160 cannot convert an image signal provided from at least one of the CPU and a memory into a signal displayed on as the Examiner suggests. Respectfully, the Examiner rejection is defective.

The Examiner does state that Nakano et al fails to disclose a spread spectrum unit for modulating a frequency of the clock signal within a predetermined frequency range, but that Chen teaches a computer system comprising an LCD display(31) having a spread spectrum unit(display control unit(34) for modulating a frequency of the clock signal within a predetermined frequency range(see figures 3-5; column 3, lines 21-68 and column 4, lines 1-45).

However, Chen is then teaching that the spread spectrum unit is included a controller 34. However, nothing specific about the controller 34 is taught other than it includes the generation of the two clock signals CK1 and CK2 from 341. On col. 3, lines 32-35 of Chen, the controller 34

includes a clock signal generator 341 electrically connected to the X driving circuit 32. Furthermore, in col. 6, lines 1-6 in claim 4 of Chen, the controller provides the plurality of data sets and clock signals. The controller 34 may not necessarily correspond to the display control unit 110 of Nakano. Therefore, it would be improper to assume that the combination then teaches a spread spectrum unit between the LCD and graphic processing unit as seen in the original claim 1 for example and especially not between the LCD transmitter and the graphic processing unit of the amended claim 1 and 16 since the Examiner is stating that the spread spectrum unit of Chen would be in 110 of Nakano and the transmitter is 170 of Nakano. Then clearly, 110 cannot be in between the transmitter 170 and the graphic controller 180 (or even 160, 170 which the examiner refers to as the graphic unit).

Furthermore, as seen in col. 15-16 of Nakano, if the dual modulated clock signals are used from Chen, the display of Nakano may not work properly. As mentioned in MPEP §706.02(j), “there must be a reasonable expectation of success.”

Furthermore, Nakano is teaching away from using a spread spectrum unit as Nakano’s invention includes certain clock signals as seen in figure 16B of Nakano. According to MPEP §2145, “It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). This portion of Nakano cannot be just ignored because according to MPEP §2141.02, “A prior art reference must be considered in its entirety, *i.e.*, as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303

(Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).”

The Examiner states that as to claims 5, 7, 22 and 24, Nakano et al as modified teaches the spread spectrum unit(110) arranged between the display transmitter(170) and a display unit(10)(see Nakano's figure 1).

The independent claims 1 and 16 were amended to include the spread spectrum unit being arranged between the display transmitter and the graphic unit.

Respectfully, we ask the Examiner to be consistent with the reference numbers. Earlier, the examiner correlated the graphics processing unit with reference 170 and now it is the display transmitter. The Examiner cannot change the corresponding references to suit the rejection.

However, assuming as the Examiner suggests, reference 170 is the transmitter and 160, 170 is the graphic processing unit and 110 is the spread spectrum, then as suggested by the combination, the display controller 110 is not arranged between the display transmitter 170 and the graphic processing unit 160, 170 (or even the graphic controller 180 which the Examiner does not mention) as seen in figure 1 of Nakano.

Therefore, the references do not teach or suggest such a limitation.

D. Claims 4 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakano et al(6,229,513) in view of Chen(6,433,766) and Leung et al(6,580,432). The Applicant respectfully traverses.

The Examiner states that Nakano et al as modified fails to point out the spread spectrum unit being integrally formed with either one of the graphic processing unit and a liquid crystal display transmitter, but that Leung et al teach the spread spectrum unit(130) can be integrally formed with the graphic processing unit(see figure 1 and column 3, lines 27-36).

However, as shown above, Leung does not teach or suggest the spread spectrum unit being integrally formed with the graphic processing unit.

E. Currently amended claims 2 and 17 are not obvious under 35 U.S.C. 103(a) as being unpatentable over the combination of Nakano et al(6,229,513) in view of Chen(6,433,766) or the combination of Nakano et al(6,229,513) in view of Chen(6,433,766) and Leung et al(6,580,432).

As amended, claims 2 and 17 also include the *spread spectrum unit... having an input connected directly to said graphic processing unit and an output connected directly to said liquid crystal display transmitter, with an output of said liquid crystal display transmitter being connected to a connector unit and cable harness for connection to said liquid crystal display.*

The combinations mentioned above do not teach or suggest the above limitation because Nakano in combination with the other references teaches of the input of reference 110 (Display Control Unit of Nakano which the Examiner corresponded to the spread spectrum unit) not being directly connected to the graphic controller 180 of Nakano and the output of reference 110 not being

directly connected to the transmitter 170.

II. CLAIM REJECTIONS - 35 U.S.C. § 102

Claims 1-3, 5-18 and 22-25 were rejected under 35 U.S.C. §102(b) by Bassetti et al(5,757,338). The Applicant respectfully traverses.

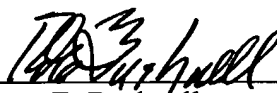
No claim is anticipated under 35 U.S.C. §102 (b) unless all of the elements are found in exactly the same situation and united in the same way in a single prior art reference. As mentioned in the **MPEP §2131**, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Every element must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (CAFC 1989). The identical invention must be shown in as complete detail as is contained in the patent claim. *Id.*, "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970), and MPEP 2143.03.

As shown above, not all of the limitations are disclosed in Bassetti as arranged in the claims, therefore, Bassetti does not anticipate the presently claimed invention.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

No fee is incurred by this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



Robert E. Bushnell,
Attorney for the Applicant
Registration No. 27,774

1522 "K" Street, N.W., Suite 300
Washington, D.C. 20005
(202) 408-9040

Folio: P56420
Date: 2/12/04
I.D.: REB/SS